

Procedure Document

ES&S Arkansas State Election Reporting Special Instructions Version # 2.0 Date: 03/24/2008

Product: Election Results Export Program

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Revision History

Name	Date	Reason For Changes	Version
William Malone	01/07/2008	Initial Document	1.0
William Malone	03/24/2008	Modified	2.0

1. Introduction

ES&S's Election Results Export Program (EXP) provides a standard process to report a county's election results to the Arkansas Secretary of State (ARSOS) for statewide results reporting. The Arkansas processing in the EXP is predicated on the performance of certain election coding in the preceding Unity systems. Election coding within the Election Data Manager (EDM) allows counties to code their election and share common multi-county contest identifiers and candidate identifiers (e.g. Governor and US Representative). This allows each county to report their candidate vote totals using the contest identifiers and candidate identifiers assigned by the Arkansas Secretary of State for statewide election results accumulation and reporting. Within Unity these state assigned contest and candidate identifiers are named Alternate Office/Contest Id and Alternate Candidate Id, respectively.

Once Alternate Office/Contest Ids and Alternate Candidate Ids, are established in the Election Data Manager, The values are passed to both down stream Unity systems: Hardware Programming Manager and Election Reporting Manager (ERM), as well as the ERM Results Export Program (EXP). The election coding entity (ES&S Election Services or the AR County) uses EDM to perform the assignment of the Arkansas Secretary of State's alternate identifiers. Once assigned, the state Alternate Office/Contest Ids are available for all elections. The state Alternate Candidate Ids need to be assigned for each election.

The ES&S Election Results Export Program requires Alternate Ids to be coded in an exact standard format. The Arkansas formats for Alternate Office/Contest Id and Alternate Candidate Id allow up to four alphanumeric characters. When using a Unity Election Reporting Manager (ERM) version 7.3.X or earlier, **EDM Alternate Ids must be key data entered in specific character positions**. Additionally, when executing the Election Reporting Manager's "Create Results Database" menu selection with the "Initialize the state cross reference file" option active, the State Code in the <election-name>.DAT file must be set to "LA".

Why is this state code change to "LA" required? In ERM versions 7.3.X and earlier, the format of the State Cross Reference File is unique by state and only fully created for certain states. The combination of data entry rules for EDM Alternate Ids and a state code of "LA" allow correct formatting of Arkansas' 4 character Alternate Ids in the State Cross Reference File without any programming changes to ERM and avoids the lengthy certification process for a modified ERM 7.3.X.

The specific EDM Alternate Ids character positions are defined below in the EDM section. The state code change to "**LA**" and the steps to create a useable state cross reference file are also detailed within the following procedures.

2. User Election Coding Activities Requirements

Some specific election coding must be performed within the Unity systems to provide the required data input to the ERM Results Export Program (EXP).

This section presents the election coding activities required to produce the Election Results Export Program file (AKA State Transfer File).

As previously discussed, when using a Unity Election Reporting Manager (ERM) version 7.3.X or earlier, EDM Alternate Ids must be key data entered in specific character positions. EDM instructions follow.

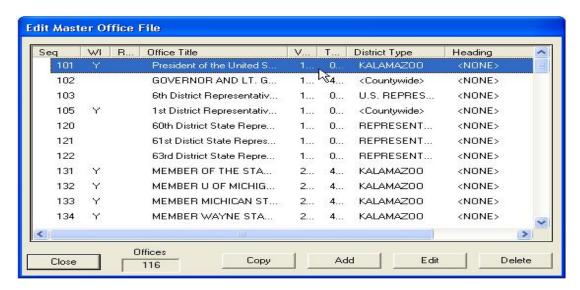
2.1 Election Data Manager Coding Activities:

Election Data Manager (EDM) will be used to establish the mapping of the State Election Authority's identifiers to the county defined offices/contests, and candidates. Contact your Secretary of State's Election Division for the current contest and candidate numbers.

NOTE: If your EDM County Office Master records are simply defining an office type (e.g. STATE HOUSE OF REPRESENTATIVE) and EDM districting and/or EDM party assignments are used to create unique election contests, you will need to code your EDM Alternate Candidate Id as a concatenation of the state assigned Office Alternate Id value and the state assigned Candidate Alternate Id value. Do NOT perform section 2.1.1, "EDM Alternate Office/Contest Id Mapping" immediately below. Rather go to section 2.1.2, "EDM Alternate Candidate Id Mapping" further below.

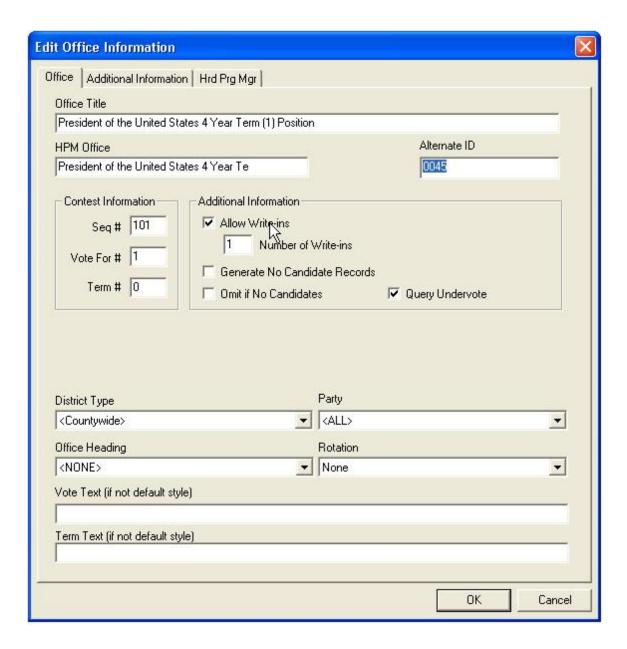
2.1.1 EDM Alternate Office/Contest Id Mapping:

From the EDM main menu select "County" => "Master Office File" => displaying the "Edit Master Office File" form. Select the office for update and click the "Edit" button.



This will display the "Edit Office Information" form. Enter the State Election Authority's assigned contest code in the "Alternate ID" text area. **NOTE**: Entry of Arkansas Alternate Contest (Office) Ids must begin in the first character position from the left of the "Alternate ID" field.

Character positions one thru four must be non-blank. Four non-blank characters must be entered. Use leading zeroes for office Alternate Ids with less than four significant characters. For example, "22" would be entered "0022" and "AG" would be entered "00AG".



Select the "OK" button. This will return to the "Edit Office Master File" form. Select the next office for update and proceed to update your EDM Office Master File with the State Election Authority's contest identifiers, returning to the EDM Main Menu when complete.

2.1.2 EDM Alternate Candidate Id Mapping:

From the EDM main menu select "Election" => "Candidates" => displaying the "Candidates for this election" form. Select the candidate for update and click the "Edit" button.



This will display the "Edit Candidate Information" form.

If you are only entering the State Election Authority's assigned candidate code in the "Alternate ID" text area, then;

NOTE: Entry of AR Alternate Candidate Ids must begin in the first character position from the left of the "Alternate ID" field. Character positions one thru four must be non-blank. Four non-blank characters must be entered. Use leading zeroes for candidate Alternate Ids with less than four significant characters. For example, "22" would be entered "0022" and "AG" would be entered "00AG".

If you are entering the State Election Authority's assigned contest code concatenated with the State assigned candidate code in the "Alternate ID" text area, then;

NOTE: Entry of Arkansas Alternate Contest (Office) Id must begin in the first character position from the left of the "Alternate ID" field. Character positions one thru eight must be non-blank. The Arkansas Alternate Contest (Office) Id must consume the first Four non-blank characters must be entered. Use leading zeroes for office Alternate Ids with less than four significant characters. For example, "22" would be entered "0022".

NEXT, Entry of the AR Alternate Candidate Id must begin in the FIFTH character position from the left of the "Alternate ID" field. Character positions FIVE thru EIGHT must be non-blank. Four non-blank characters must be entered. Use leading zeroes for candidate Alternate Ids with less than four significant characters. For example, "98" would be entered "0098".



The resulting concatenated Alternate Candidate Id value would be "00220098".

Select the "OK" button. This will return to the "Candidates for this election" form. Select the next candidate for update and proceed to update your EDM candidates for this election with the State Election Authority's contest and/or candidate identifiers, returning to the EDM Main Menu when complete.

2.1.3 EDM Usual Election Coding:

Perform all other required EDM election-coding steps (see EDM Users Manual). When done with EDM election coding, and you have performed "Generate Ballot Styles" to create the IFC file input to the Hardware Programming Manager (HPM), proceed to the next instructional section immediately below for required HPM election coding steps.

2.2 <u>Hardware Programming Manager Coding Activities:</u>

Arkansas county election results must be reported by polling place. Therefore, all precincts in the election must be associated with at least one polling place. Hardware Programming Manager (HPM) election coding should be performed as per the HPM Users Manual. The below additional or changed HPM election coding processes must be performed.

2.2.1 HPM Polling Place Report:

From the HPM main menu select "Modify Election Definition" => "Polling Places" => "Print Polling Place Listing" displaying the "Print Polling Place Listing" form.

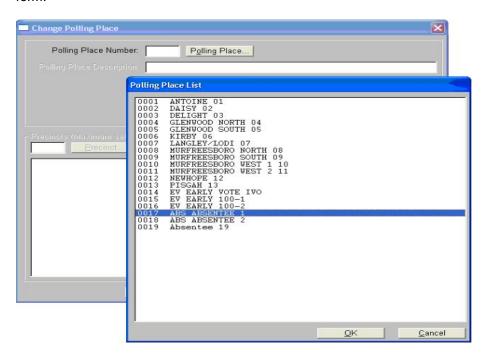
Select the "OK" button displaying the "Print" form. Select the "OK" button to print the listing.

2.2.2 Review the HPM Polling Place Coding:

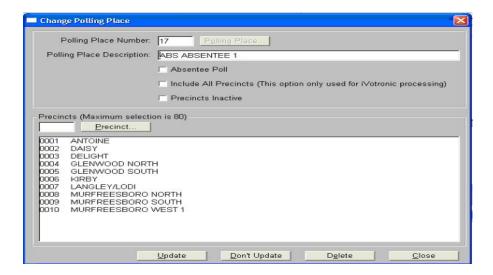
Check the Polling Place Listing to determine the polling place names and assigned precincts adhere to the AR SOS required naming conventions and required precinct assignment to polling place. See the Appendix section 4.1 for naming standards and precinct assignment requirements. If a polling places name requires change, proceed to step 2.2.3. If precincts are unassigned to a polling place, proceed to step 2.2.4.

2.2.3 HPM Polling Place Coding Name Update:

From the HPM main menu select "Modify Election Definition" => "Polling Places" => "Change Polling Place" displaying the "Change Polling Place" form.

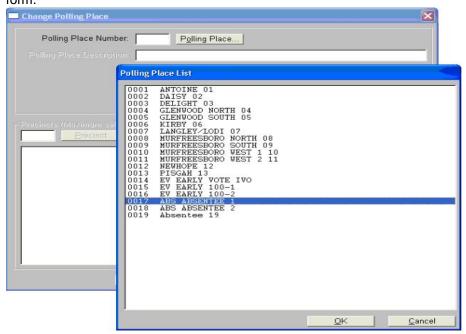


Enter the Polling Place number or display the Polling Place List and select the polling place and click "OK". The "Change Polling Place" form is displayed.

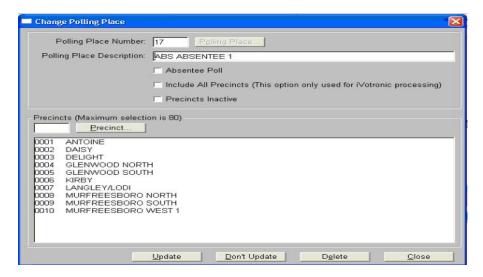


Modify the Polling Place Description field to conform to the naming standards. Click "Update" button. Perform this update for all polling places requiring a name update. When updates are completed, click the "Close" button.

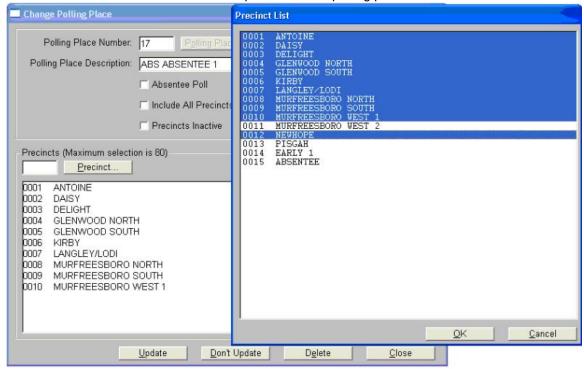
2.2.4 HPM Polling Place Coding Precinct Assignment Update:
From the HPM main menu select "Modify Election Definition" => "Polling Places" => "Change Polling Place" displaying the "Change Polling Place" form.



Enter the Polling Place number or display the Polling Place List and select the polling place and click "OK". The "Change Polling Place" form is displayed.



Based on the AR SOS required precinct assignment to polling place rules (Appendix section 4.1), if a precinct requires assignment to an existing polling place, add the precinct to the Precinct List form and click "OK" to add the precinct to the polling place.



In the above example, we have added precinct "0012 NEWHOPE" to the "ABS ABSENTEE 1" polling place.

If based on the AR SOS required precinct assignment to polling place rules (Appendix section 4.1) a precinct requires assignment to a new polling place, enter the new polling place number and press "Enter" key.

Proceed to enter the new polling place information and add the precinct or precincts to the new polling place. Click the "Update" button. Perform this update for all precincts requiring assignment to the new polling place. When updates are complete, Click the "Close" button.

NOTE: Updates to existing polling places and the addition of polling places may be performed at any time during the election cycle, even after election results have been loaded into the Election Reporting Manager.

2.3 Backup Election Files Activities:

As described in the Introduction section 1, the state code must be temporarily changed to "LA" to successfully create the State Cross Reference File in the Election Reporting Manager. However, we need to save the current election files. Backup the current election files.

2.3.1 Access the Windows file manager explore:

Right click the Windows "Start" option and left click the "Explore" option. Position to the \ELECDATA folder. Select all the "<election-name>.*" files and copy them to the \ELECDATA\<election-name> subfolder. We will restore these files to the \ELECDATA folder later.

2.4 <u>Election Data Manager Additional Coding Activities:</u>

As described in the Introduction section 1, the state code must be temporarily changed to "**LA**" to successfully create the State Cross Reference File in the Election Reporting Manager. Access the Election Data Manager (EDM).

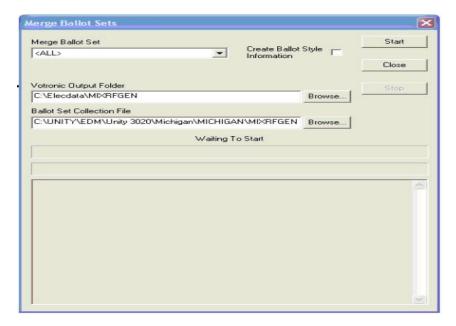
2.4.1 EDM Change State Code:

From the EDM main menu select "File" => "Edit Election Information" => displaying the "Edit Election Info" form. Set the State Code field to "LA" and click the "OK" button.

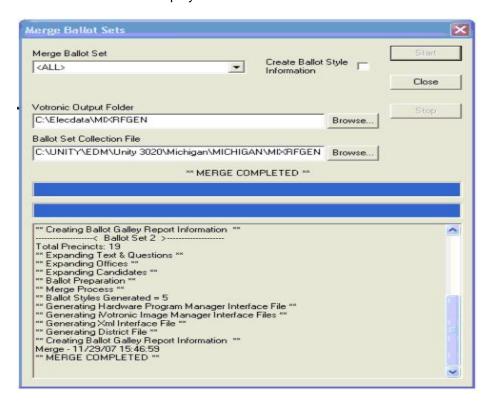


2.4.2 EDM Regenerate IFC File:

From the EDM main menu select "Merge" => "Generate Ballot Styles" => displaying the "Merge Ballots Sets" form. Click the "Start" button.



The below form will be displayed.



When "MERGE COMPLETED" is displayed. Click "Close". An IFC file has been created. Proceed to next step.

2.4.3 EDM Change State Code Back to "AR":

From the EDM main menu select "File" => "Edit Election Information" => displaying the "Edit Election Info" form. Set the State Code field to "AR" and click the "OK" button.



2.5 Hardware Programming Manager Additional Coding Activities:

The Hardware Programming Manager (HPM) will be invoked. The IFC file created by EDM with the state code set to "**LA**" must be imported to the HPM. This process is described below.

2.5.1 HPM IFC Import Update:

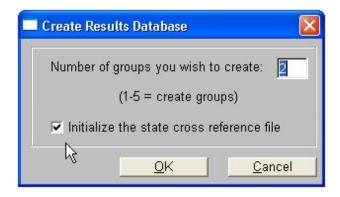
From the HPM main menu select "Election" => "Import IFC" displaying the "Import IFC File" form. Click "OK". On the next "Import IFC File" form, select "Replace All Data" option and click "OK". When the "HPM Interface Processing is Complete" message is displayed, click "OK".

2.6 Election Reporting Manager Additional Coding Activities:

Election Reporting Manager (ERM) will be used to create the contest and candidate cross reference file based on the EDM mapping of the State Election Authority's identifiers to the county defined contests, and candidates.

2.6.1 ERM Database Creation:

From the ERM main menu select "Election" => "Create Results Database" displaying the "Create Results Database" form. Enter the number of group subtotals for the election and select the checkbox labeled "Initialize the state cross reference file". Select "OK" button.



Selection of the "Initialize the state cross reference file" checkbox will create the cross reference file of the State Election Authority's identifiers to the county defined contests, and candidates. This State Cross Reference file is required for the creation of the State Results Transfer File within the ERM Results Export Program. We need to backup this State Cross Reference File (SCRF).

NOTE: See the Appendix section 4.2 for required naming standards for ERM Groups. The ERM Group naming standards must be followed to accomplish accurate election results reporting by the EXP utility.

2.7 Backup the State Cross Reference File (SCRF) Additional User Activities:

After you have created and verified your state cross-referencing, create a backup file of your State Cross Reference File (<election name>.XRS) located in your ELECDATA folder. ES&S recommends creating a backup copy of your State Cross Reference File. This will enable you to quickly recover the file in the event of errors. Additionally, the State Cross Reference File (<election name>.XRS) located in your ELECDATA folder, **MUST** be copied to the \ELECDATA\<election-name>\ subfolder.

- 2.7.1 Backup the State Cross Reference File (<election name>.XRS):

 NOTE: It is essential that all steps in this process be accurately completed!
 - 2.7.1.1 Right-click on the Start menu, click Explore and locate the folder where your cross reference file resides. For example, if you are storing the election data on the local drive, the cross reference file will be in "C:\ELECDATA" folder and the file will be named "<election-name>.XRS" where <election-name> is the name of your election (e.g. 8PARPIKE.XRS).
 - **2.7.1.2** Right-click on the .XRS file and select Copy.
 - **2.7.1.3** Right-click on the <election-name> subfolder destination and click Paste.
 - **2.7.1.4** Right-click on the <election-name> subfolder again and click Open.
 - **2.7.1.5** Verify the existence of the <election-name>.XRS file in the <election-name> subfolder.

2.7.1.6 Right-click on another backup destination such as the Desktop or a CD-ROM or disk drive and click Paste.

2.8 Restore "AR" Election Files Activities:

We are done processing with the state code temporarily changed to "**LA**". We have successfully created the State Cross Reference File in the Election Reporting Manager. However, we need to restore the "AR" saved election files.

2.8.1 Restore the "AR" saved election files using the Windows file manager explore:

Access the MS Windows file Explore with a right click on the Windows "Start" option and left click the "Explore" option.

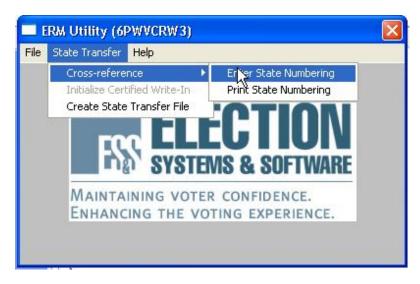
Position to the \ELECDATA\<election-name> subfolder. Select all the "<election-name>.*" files and copy the files to the \ELECDATA\ folder, replacing any existing files of the same name. We have restored the "AR" election files to the \ELECDATA folder.

3. <u>Election Results Export Program User Activities:</u>

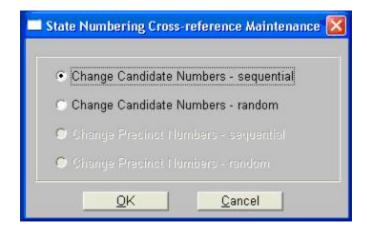
Election Results Export Program (EXP) will be used to create the State Results Transfer File. The State Results Transfer File is a candidate votes by polling place file for all Secretary Of State requested candidates. The ERM created State Cross Reference file contains the Secretary Of State's contest and candidate codes. The State Cross Reference file provides the Secretary Of State's identifiers in the State Results Transfer File.

3.1 EXP State Transfer Cross Reference Maintenance:

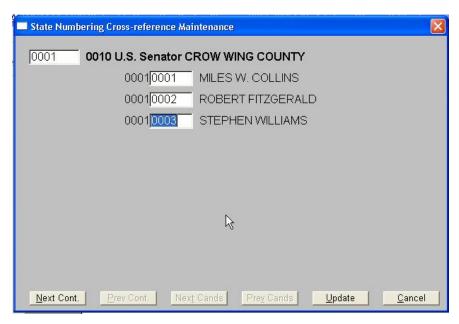
From the EXP main menu select "State Transfer" => "Cross-reference" => "Enter State Numbering".



the "State Numbering Cross-reference Maintenance" form is displayed. Select the option to access "Change Candidate Numbers – sequential" state number maintenance. Select the "OK" button.

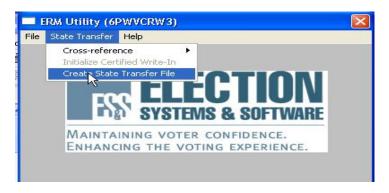


When candidate maintenance is selected, the candidate numbering maintenance form is displayed. If required, the State Election Authority's contest and candidate identifiers can be updated. Select the "Update" button to record any updates.



3.2 EXP Create State Transfer File:

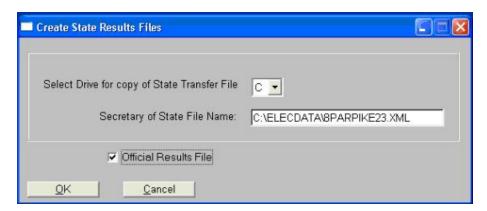
From the EXP main menu select "State Transfer" => "Create State Transfer File".



The "Create State Results Files" form is displayed. When this form is initially accessed, the state assigned County Code may require entry. For any subsequent display of this form, the County Code will be redisplayed. Select the "OK" button.



The next "Create State Results Files" form is displayed.



3.2.1.1 When the above form is initially accessed, the Drive letter for the copy of the State Transfer file must be selected. For any subsequent display of this form, the Drive letter will be redisplayed. Whenever this form is accessed, the Standard State Transfer File Location and name is constant and not updateable. The standard location and name is "<ERM_Drive>:\ELECDATA\<election-name>##.XML", where <election-name> is the name of your election (e.g. 8PARPIKE.XRS) and "##" is your county number. For example: "C:\ELECDATA\8PARPIKE23.XML".

Click the appropriate button describing the content of your results file:

Test Results File – File contains L&A or other test results
Unofficial Results File – File contains actual election results, but
not final.

Official Final Results File - File contains the final official election results, usually after the official canvass.

Select the OK button.

The next "Create State Results Files" form is displayed.



This form is displayed upon completion of the State Transfer File creation. Statistics for the number of polls, number of precincts, contests, candidates and total records written to the file are displayed, as well as the standard location of the State Transfer File and the file copy. Select the OK button.

4. Appendix

4.1 Arkansas SOS HPM Precinct and Polling Place Naming Standard:

REQUIREMENTS FOR SETTING UP ARKANSAS HPM PRECINCTS AND POLLING PLACES TO CONFORM TO STATE REPORTING SOFTWARE As of March 11, 2008

Standard ES&S Hardware Programming Manager (HPM) polling place names must be utilized by all the Arkansas counties to provide consistent polling place results accumulation from the counties for the Secretary of State's state results reporting. Please adhere to the following HPM polling place naming rules.

HPM POLLING PLACE AND PRECINCT DEFINITION

GENERAL RULES:

ALL Precincts must be assigned to at least one HPM polling place. Accurate reporting of your county's election results requires this.

For elections coded to allow ERM manual entry of M100 Early Voting results into a single ERM precinct, this precinct number must be added to the last Early voting poll for equipment type 100. This precinct number must not be assigned to any other HPM polling place.

For elections coded to allow manual entry of M100 Absentee Voting results into a single ERM precinct, an additional HPM polling place must be added with this precinct number assigned to the Poll. This precinct number may not be assigned to any other HPM polling place.

For elections coded to allow ERM upload of M650 Absentee Voting results into a single ERM absentee precinct, an additional HPM polling place must be added with this precinct number assigned to the Poll. The HPM addition of this Absentee Polling Place must be performed AFTER the initial ERM database creation. This precinct number may not be assigned to any other HPM polling place.

EARLY VOTE POLLS

All Early Vote polls need to be named with an "EV" prefix.

Therefore, an Early Vote Poll named "Courthouse" could be named, "EV Courthouse" or "EV-Courthouse" in HPM. We will do this whether or not it is a true single precinct Early Vote poll, or an Early Vote poll with all election day precincts tied to it, with the results loaded into an Early Vote group in ERM.

If an early vote poll is to be named "Early Vote" or "Early Voting", then the HPM Polling Place name should be "EV Early Vote" or "EV Early Voting", respectively.

All Early Vote polls need to be suffixed with the equipment type, "100", "IVO", or "650". For example, an Early Vote Poll named Courthouse, using M100 tabulators will be named "EV Courthouse 100".

Additionally, if the equipment type (i.e. M100), dictates coding more than 1 Early Vote Poll, Early Vote Polls will be named "EV Courthouse 100-1" and "EV Courthouse 100-2", etc.

ABSENTEE POLLS

Absentee polling places need to be named beginning with the following two characters "AV" or the following eight characters, "Absentee".

All absentee polls must be suffixed with the equipment type, "100", "IVO", or "650". For example, an absentee Poll using M100 equipment can be named "AV Absentee 100" or "Absentee 100".

Additionally, if the election requires more than 1 Absentee polling place, each needs to be suffixed with a number.

Therefore, if the election requires more than 1 Absentee Poll for the same equipment, Absentee Polls must be named "Absentee 100-1", "Absentee 100-2", etc. or "AV Absentee 100-1", "AV Absentee 100-2", etc.

PROVISIONAL VOTE POLLS

All Provisional Vote polls need to be named with a "PV" prefix.

Therefore, a Provisional Poll named "Courthouse" will be named "PV Courthouse" or "PV-Courthouse" in HPM. If a Provisional vote poll is to be named "Provisional Votes" or "Provisional Voting", then the HPM Polling Place name must be "PV Provisional Votes" or "PV-Provisional Voting".

All Provisional Vote polls need to be suffixed with the equipment type, "100", "IVO", or "650". For example, a Provisional Vote Poll named "PV Courthouse", using M100 tabulators must be named "PV Courthouse 100".

Additionally, if the election requires more than 1 Provisional Vote Poll for the same equipment, each needs to be suffixed with a number.

Therefore, if the election requires more than 1 Provisional Poll for the same equipment, Provisional Polls must be named "PV Courthouse 100-1" and "PV Courthouse 100-2", etc.

BACKUP POLLS

A common practice is to define a "backup" polling place containing all the Election Day precincts. This polling place is burned to a few media devices (e.g. PEBs or M100 cards) for use as replacement media in the event an election day polling place's media device fails. All Backup polling places names must begin with the word "BACKUP" or "Backup".

Therefore, a backup poll for all nineteen election day precincts will be named "BACKUP" or "Backup" or "Backup 1-19" in HPM. After the word "BACKUP" or "Backup" any characters or words can be assigned.

ELECTION DAY POLLS

Election Day polling places can be any name. No special coding is required. Be aware, any polling place not beginning with the "EV", "AV", "Absentee", "PV" or "BACKUP" or "Backup" prefix is reported as an Election Day poll. This allows use of the actual polling place's name for almost every election day poll.

4.2 Arkansas SOS ERM Election Reporting Group Naming Standard:

REQUIREMENTS FOR SETTING UP ARKANSAS ERM GROUPS TO CONFORM WITH STATE REPORTING SOFTWARE As of March 11, 2008

Election Reporting Manager (ERM) GROUPS NAMING REQUIREMENTS

Standard ES&S Election Reporting Manager (ERM) group names must be utilized by the counties to provide consistent group results accumulation from all the Arkansas counties for the Secretary of State's state results reporting. Please adhere to the following ERM group naming rules.

EARLY VOTE GROUPS

All ERM Early Vote groups' names must begin with "EV" (case sensitive) as the first two letters or "Early Voting" (case sensitive) as the first two words in the group name field.

If desired, additional descriptive wording may be added following the "EV" or the two words "Early Voting".

ABSENTEE VOTE GROUPS

All ERM Absentee Vote groups' names must begin with "AV" (case sensitive) as the first two letters or "Absentee" (case sensitive) as the first word in the group name field.

If desired, additional descriptive wording may be added following the "AV" or the word "Absentee".

PROVISIONAL VOTE GROUPS

All ERM Provisional Vote groups' names must begin with "PV" (case sensitive) as the first two letters or "Provisional" (case sensitive) as the first word in the group name field.

If desired, additional descriptive wording may be added following the "PV" or the word "Provisional".

ELECTION DAY GROUPS

All ERM Election Day Vote groups' names must begin with "ED" (case sensitive) as the first two letters or "Election Day" (case sensitive) as the first two words in the group name field. If desired, additional descriptive wording may be added following the "ED" or the two words "Election Day".

4.3 Arkansas EXP Election Results File Format:

EXP Arkansas state transfer file is an XML file format. Data values for County Code, Contest Codes, and Candidate Codes are State defined codes and will be communicated to all parties involved in election coding and definition for each election and must be used by the county and/or vendor during election coding and definition. The County Code, Contest Codes and Candidate Codes are numeric.

The file is saved in the current ERM drive of the Election Reporting Manager in the "<ERM Drive>:\elecdata\" directory and a user defined secondary drive. The standard election naming convention is as follows.

- Last digit of the election year
- Single letter election descriptor
- Two character state code, "AR"
- First four characters of the county name
- Two digit county code
- File extension is "XML"

Example: 8PARPULA36.XML

The Arkansas EXP XML State Transfer File XSD data file is named, "ArkansasExpResults.xsd".

The ArkansasExpResults.xsd XML EXP State Transfer File XSD data file format is as follows:

```
<?xml version="1.0" encoding="UTF-8" ?>
```

- <xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
- <!-- EXPARXML 2.0 ERM Results Export Program Arkansas State Results XML File version 2.0 EXP 2.0 -->
- <!-- Owner is expected to be a State or perhaps a County where the id = Intelect customerID --> <xs:element name="Owner">

```
<xs:complexType>
  <xs:sequence>
    <xs:element ref="ReportTime"/>
    <xs:element ref="JurisdictionMap"/>
    <xs:element ref="PartyMap"/>
```

```
<xs:element ref="Election"/>
     </xs:sequence>
        <xs:attribute name="id" use="required"><!-- This is an Intelect generated id value for</p>
       customer -->
       <xs:simpleType>
         <xs:restriction base="xs:string">
           <xs:minLength value="1"/>
           <xs:maxLength value="10"/>
           <xs:whiteSpace value="collapse"/>
         </xs:restriction>
       </xs:simpleType>
     </xs:attribute>
     <xs:attribute name="name" use="required">
       <xs:simpleType>
         <xs:restriction base="xs:string">
           <xs:minLength value="1"/>
         </xs:restriction>
       </xs:simpleType>
     </xs:attribute>
   </xs:complexType>
 </xs:element>
 <xs:element name="ReportTime"><!-- moment of creation of this file in Zulu time -->
   <xs:simpleType>
     <xs:restriction base="xs:string">
        <xs:pattern value="[2][0-9]{3}-[0?1][0-2]-[0-3][0-9]T[0?1][0-9]:[0?12345][0-9]:[0?12345][0-9]</p>
        91Z"/>
     </xs:restriction>
   </xs:simpleType>
 </xs:element>
 <!-- Juristictions map to counties and attributes include total number of counties, counties
reporting and precentage of counties reporting -->
 <xs:element name="JurisdictionMap">
   <xs:complexType>
     <xs:sequence>
       <xs:element minOccurs="0" maxOccurs="unbounded" ref="Jurisdiction"/>
     </xs:sequence>
     <xs:attribute name="totalJurisdictions" use="required" type="xs:integer"/>
     <xs:attribute name="reportingJurisdictions" use="required" type="xs:integer"/>
     <xs:attribute name="percentReported" use="required" type="Percentage"/>
   </xs:complexType>
 </xs:element>
 <xs:element name="Jurisdiction">
   <xs:complexType>
     <xs:sequence>
       <xs:element minOccurs="1" maxOccurs="unbounded" ref="PollPlace"/>
     </xs:sequence>
     <xs:attribute name="id" use="required" type="xs:integer"/>
     <xs:attribute name="title" use="required"/>
     <xs:attribute name="typeId" use="required" type="xs:integer"/>
     <xs:attribute name="ballotsCast" use="required" type="xs:integer"/>
     <xs:attribute name="castPercentage" use="required" type="Percentage"/>
     <xs:attribute name="percentReported" use="required" type="Percentage"/>
     <xs:attribute name="totalPrecincts" use="required" type="xs:integer"/>
```

```
<xs:attribute name="totalPollplaces" use="required" type="xs:integer"/>
 </xs:complexType>
</xs:element>
<xs:element name="PartyMap">
 <xs:complexType>
   <xs:sequence>
     <xs:element minOccurs="0" maxOccurs="64" ref="Party"/>
   </xs:sequence>
 </xs:complexType>
</xs:element>
<xs:element name="Party">
 <xs:complexTvpe>
   <xs:attribute name="id" use="required" type="xs:integer"/>
   <xs:attribute name="abbrv" use="required" type="xs:NCName"/>
   <xs:attribute name="name" use="required"/>
 </xs:complexType>
</xs:element>
<xs:element name="Election">
 <xs:complexType>
   <xs:sequence>
     <xs:element minOccurs="1" ref="ContestList"/>
   </xs:sequence>
     <xs:attribute name="id" use="required" type="xs:integer"/><!-- this is an Intelect</pre>
     generated value for the election -->
   <xs:attribute name="electionName" use="required"/>
   <xs:attribute name="electionTitle" use="required"/>
   <xs:attribute name="resultsType" use="required"/>
   <xs:attribute name="ballotsCast" use="required" type="xs:integer"/>
   <xs:attribute name="castPercentage" use="required" type="Percentage"/>
 </xs:complexType>
</xs:element>
<xs:element name="ContestList">
 <xs:complexType>
   <xs:sequence>
     <xs:element minOccurs="1" maxOccurs="unbounded" ref="Contest"/>
   </xs:sequence>
 </xs:complexType>
</xs:element>
<xs:element name="Contest">
 <xs:complexType>
   <xs:sequence>
     <xs:element minOccurs="0" maxOccurs="unbounded" ref="Candidate"/>
   </xs:sequence>
   <xs:attribute name="id" use="required" type="xs:integer"/>
   <xs:attribute name="altNumber" use="required" type="AltNumber"/>
   <xs:attribute name="partyld" use="optional" type="xs:integer"/>
   <xs:attribute name="stateWide" use="required" type="YesNo"/>
   <xs:attribute name="title" use="required"/>
   <xs:attribute name="typeCode" use="optional">
     <xs:simpleType>
       <xs:restriction base="xs:string">
        <xs:minLength value="0"/>
        <xs:maxLength value="1"/>
```

```
<xs:whiteSpace value="collapse"/>
       </xs:restriction>
     </xs:simpleType>
   </xs:attribute>
   <xs:attribute name="voteFor" use="required" type="xs:integer"/>
   <xs:attribute name="runoff" use="required" type="YesNo"/>
   <xs:attribute name="ballotsCast" use="required" type="xs:integer"/>
   <xs:attribute name="castPercentage" use="required" type="Percentage"/>
   <xs:attribute name="writeinVotes" use="required" type="xs:integer"/>
   <xs:attribute name="overVotes" use="required" type="xs:integer"/>
   <xs:attribute name="underVotes" use="required" type="xs:integer"/>
 </xs:complexType>
</xs:element>
<xs:element name="Candidate">
 <xs:complexType>
   <xs:sequence>
     <xs:element minOccurs="0" maxOccurs="unbounded" ref="Votes"/>
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   <xs:attribute name="id" use="required" type="xs:integer"/>
   <xs:attribute name="altNumber" use="required" type="AltNumber"/>
   <xs:attribute name="pos" use="required" type="xs:integer"/>
   <xs:attribute name="name" use="required"/>
   <xs:attribute name="partyld" use="optional" type="xs:integer"/>
   <xs:attribute name="winner" use="required" type="YesNo"/>
   <xs:attribute name="runoff" use="required" type="YesNo"/>
   <xs:attribute name="recount" use="required" type="YesNo"/>
 </xs:complexType>
</xs:element>
<xs:element name="PollPlace">
 <xs:complexType mixed="false">
   <xs:sequence>
     <xs:element minOccurs="0" maxOccurs="unbounded" ref="PollPlaceParty"/>
   </xs:sequence>
   <xs:attribute name="id" use="required" type="xs:integer"/>
   <xs:attribute name="ballotsCast" use="required" type="xs:integer"/>
   <xs:attribute name="castPercentage" use="required" type="Percentage"/>
   <xs:attribute name="altNumber" use="required" type="AltNumber"/>
   <xs:attribute name="counted" use="required" type="YesNo"/>
   <xs:attribute name="regVoters" use="required" type="xs:integer"/>
   <xs:attribute name="pollType" use="required"/>
   <xs:attribute name="name" use="required">
     <xs:simpleType>
       <xs:restriction base="xs:string">
         <xs:minLength value="1"/>
         <xs:whiteSpace value="collapse"/>
       </xs:restriction>
     </xs:simpleTvpe>
   </xs:attribute>
 </xs:complexType>
</xs:element>
<xs:element name="Votes">
 <xs:complexType>
```

```
<xs:simpleContent>
       <xs:extension base="xs:integer">
         <xs:attribute name="pollPlaceId" use="required" type="xs:integer"/>
       </xs:extension>
     </xs:simpleContent>
   </xs:complexType>
 </xs:element>
 <xs:simpleType name="Percentage">
   <xs:restriction base="xs:decimal">
     <xs:pattern value = "[1][0]{2}[\.][0]{2}"/>
     <xs:pattern value = "[0-9]{2}[\.][0-9]{2}"/>
   </xs:restriction>
 </xs:simpleType>
 <xs:simpleType name="YesNo">
   <xs:restriction base="xs:integer">
     <xs:minInclusive value="0"/>
     <xs:maxInclusive value="1"/>
   </xs:restriction>
 </xs:simpleType>
 <xs:simpleType name="AltNumber">
   <xs:restriction base="xs:string">
     <xs:minLength value="1"/>
     <xs:maxLength value="22"/>
   </xs:restriction>
 </xs:simpleType>
  <!-- Party counts per poll place include number of registered voters and ballots cast -->
 <xs:element name="PollPlaceParty">
   <xs:complexType>
     <xs:attribute name="partyld" use="required" type="xs:integer"/>
     <xs:attribute name="regVoters" use="required">
        <xs:simpleType>
          <xs:restriction base="xs:integer">
             <xs:minInclusive value="0"></xs:minInclusive>
          </xs:restriction>
        </xs:simpleType>
     </xs:attribute>
     <xs:attribute name="ballotsCast" use="required" >
       <xs:simpleType>
          <xs:restriction base="xs:integer">
             <xs:minInclusive value="0"></xs:minInclusive>
          </xs:restriction>
       </xs:simpleType>
     </xs:attribute>
   </xs:complexType>
 </xs:element>
</xs:schema>
```

The following is an example of the XML voting results file the Arkansas Secretary of State is expecting to receive from each county.

Example ERM Results Export Program File Arkansas State File Format

```
<?xml version="1.0" encoding="UTF-8" ?>
- <Owner xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"</p>
    xsi:noNamespaceSchemaLocation="file:/C:/ELECDATA/ArkansasExpR
    esults.xsd" id="0" name="Arkansas EXP Results XML File version
    <ReportTime>2006-01-25T17:50:46Z</ReportTime>
  - <JurisdictionMap percentReported="100.00" reportingJurisdictions="1"</p>
      totalJurisdictions="1">
    - < Jurisdiction ballotsCast="13224" castPercentage="54.86" id="1"
         percentReported="95.45" title="ARKANSAS COUNTY"
        typeId="2" totalPrecincts="22" totalPollplaces="18">
      - <PollPlace ballotsCast="516" castPercentage="25.00" id="1"</p>
           altNumber="1" counted="1" regVoters="4304"
           name="Abbeville 1">
          <PollPlaceParty partyId="1" regVoters="2000"</pre>
             ballotsCast="300" />
          <PollPlaceParty partyId="2" regVoters="1000"
             ballotsCast="200" />
          <PollPlaceParty partyId="3" regVoters="0"
             ballotsCast="16" />
        </PollPlace>
        <PollPlace ballotsCast="25" castPercentage="12.00" id="2"
           altNumber="2" counted="0" regVoters="300"
           name="Abbeville 2" />
      - < PollPlace ballotsCast="3343" castPercentage="81.53"
           id="3" altNumber="3" counted="1" regVoters="4100"
           name="Abbeville 3">
          <PollPlaceParty partyId="1" regVoters="2000"
             ballotsCast="1567" />
          <PollPlaceParty partyId="2" regVoters="1000"</pre>
             ballotsCast="888" />
          <PollPlaceParty partyId="3" regVoters="1000"
             ballotsCast="888" />
        </PollPlace>
      - <PollPlace ballotsCast="32" castPercentage="10.66" id="4"</p>
           altNumber="4" counted="1" regVoters="300"
           name="Abbeville 4">
          <PollPlaceParty partyId="1" regVoters="100"
             ballotsCast="32" />
        </PollPlace>
      - <PollPlace ballotsCast="2455" castPercentage="204.58"</p>
           id="5" altNumber="5" counted="1" regVoters="1200"
           name="005 Antreville">
          <PollPlaceParty partyId="1" regVoters="0"
             ballotsCast="0" />
          <PollPlaceParty partyId="2" regVoters="200"
             ballotsCast="1567" />
```

```
<PollPlaceParty partyId="3" regVoters="1000"</pre>
      ballotsCast="888" />
 </PollPlace>
- <PollPlace ballotsCast="25" castPercentage="02.27" id="6"</p>
    altNumber="6" counted="1" regVoters="1100"
    name="006 Broadmouth">
    <PollPlaceParty partyId="1" regVoters="0"
      ballotsCast="0" />
    <PollPlaceParty partyId="2" regVoters="200"
      ballotsCast="15" />
    <PollPlaceParty partyId="3" regVoters="900"
      ballotsCast="10" />
 </PollPlace>
 <PollPlace ballotsCast="0" castPercentage="00.00" id="7"
    altNumber="7" counted="0" regVoters="300" name="007
    Calhoun Falls" />
 <PollPlace ballotsCast="350" castPercentage="31.81" id="8"
    altNumber="8" counted="1" regVoters="1100"
    name="008 Cold Springs" />
 <PollPlace ballotsCast="370" castPercentage="185.00"
    id="9" altNumber="9" counted="1" regVoters="200"
    name="009 Donalds" />
- <PollPlace ballotsCast="2455" castPercentage="81.83"</p>
    id="10" altNumber="10" counted="1" regVoters="3000"
    name="010 Due West">
    <PollPlaceParty partyId="1" regVoters="2000"
      ballotsCast="1567" />
    <PollPlaceParty partyId="2" regVoters="1000"
      ballotsCast="888" />
 </PollPlace>
- <PollPlace ballotsCast="888" castPercentage="74.00"</p>
    id="11" altNumber="11" counted="1" regVoters="1200"
    name="011 Hall's Store">
    <PollPlaceParty partyId="2" regVoters="1000"</pre>
      ballotsCast="888" />
 </PollPlace>
- <PollPlace ballotsCast="1567" castPercentage="52.23"</p>
    id="12" altNumber="12" counted="1" regVoters="3000"
    name="012 Keowee">
    <PollPlaceParty partyId="1" regVoters="2000"</pre>
      ballotsCast="1567" />
 </PollPlace>
 <PollPlace ballotsCast="420" castPercentage="42.00"
    id="13" altNumber="13" counted="1" regVoters="1000"
    name="013 Lowndesville" />
- <PollPlace ballotsCast="778" castPercentage="25.93"</p>
    id="14" altNumber="14" counted="1" regVoters="3000"
    name="014 Lebanon">
```

```
<PollPlaceParty partyId="2" regVoters="1000"</pre>
          ballotsCast="778" />
      </PollPlace>
   </Jurisdiction>
 </JurisdictionMap>
- <PartyMap>
   <Party abbrv="DEM" id="1" name="DEMOCRAT" />
   <Party abbrv="REP" id="2" name="REPUBLICAN" />
   <Party abbrv="NON" id="3" name="NONPARTISAN" />
 </PartyMap>
- <Election ballotsCast="13224" castPercentage="00.00"</p>
    electionName="8PARARKA" electionTitle="Arkansas Primary May
    20, 2008" resultsType="U" id="49">
  - <ContestList>
    - <Contest altNumber="a0012" partyId="1" ballotsCast="0"</p>
        castPercentage="00.00" id="14" runoff="0" stateWide="1"
        title="LIEUTENANT GOVERNOR" typeCode=""
        voteFor="0" overVotes="0" underVotes="0"
        writeinVotes="0">
      - < Candidate id="18" altNumber="a122" name="MIKE
          CAMPBELL" partyId="1" pos="2" recount="0"
          runoff="0" winner="0">
          <Votes pollPlaceId="1">8889</Votes>
          <Votes pollPlaceId="2">591</Votes>
          <Votes pollPlaceId="3">1037</Votes>
          <Votes pollPlaceId="4">911</Votes>
          <Votes pollPlaceId="5">812</Votes>
          <Votes pollPlaceId="6">1214</Votes>
          <Votes pollPlaceId="7">1003</Votes>
          <Votes pollPlaceId="8">1184</Votes>
          <Votes pollPlaceId="9">878</Votes>
          <Votes pollPlaceId="10">1131</Votes>
          <Votes pollPlaceId="11">1102</Votes>
          <Votes pollPlaceId="12">985</Votes>
          <Votes pollPlaceId="13">1120</Votes>
          <Votes pollPlaceId="14">965</Votes>
        </Candidate>
      - <Candidate id="19" altNumber="123" name="ANDRE</p>
          BAUER" partyId="1" pos="1" recount="0" runoff="0"
          winner="0">
          <Votes pollPlaceId="1">895</Votes>
          <Votes pollPlaceId="2">591</Votes>
          <Votes pollPlaceId="3">1037</Votes>
          <Votes pollPlaceId="4">911</Votes>
          <Votes pollPlaceId="5">812</Votes>
          <Votes pollPlaceId="6">1214</Votes>
          <Votes pollPlaceId="7">1003</Votes>
```

```
<Votes pollPlaceId="8">1184</Votes>
      <Votes pollPlaceId="9">878</Votes>
      <Votes pollPlaceId="10">1131</Votes>
      <Votes pollPlaceId="11">1102</Votes>
      <Votes pollPlaceId="12">985</Votes>
      <Votes pollPlaceId="13">1120</Votes>
      <Votes pollPlaceId="14">965</Votes>
    </Candidate>
 </Contest>
- <Contest altNumber="0014" ballotsCast="0"</pre>
    castPercentage="00.00" id="13" runoff="0" stateWide="1"
    title="STATE TREASURER" typeCode="" voteFor="0"
    overVotes="0" underVotes="0" writeinVotes="0">
  - <Candidate id="20" altNumber="1234"
      name="THOMAS RAVENEL" partyId="1" pos="1"
      recount="0" runoff="0" winner="0">
      <Votes pollPlaceId="1">1245</Votes>
      <Votes pollPlaceId="2">884</Votes>
      <Votes pollPlaceId="3">1509</Votes>
      <Votes pollPlaceId="4">1411</Votes>
      <Votes pollPlaceId="5">1189</Votes>
      <Votes pollPlaceId="6">1668</Votes>
      <Votes pollPlaceId="7">1446</Votes>
      <Votes pollPlaceId="8">1788</Votes>
      <Votes pollPlaceId="9">1235</Votes>
      <Votes pollPlaceId="10">1622</Votes>
      <Votes pollPlaceId="11">1590</Votes>
      <Votes pollPlaceId="12">1316</Votes>
      <Votes pollPlaceId="13">1714</Votes>
      <Votes pollPlaceId="14">1469</Votes>
    </Candidate>
  - <Candidate id="21" altNumber="1235" name="JEFF</p>
      WILLIS" partyId="1" pos="2" recount="0" runoff="0"
      winner="0">
      <Votes pollPlaceId="1">1245</Votes>
      <Votes pollPlaceId="2">884</Votes>
      <Votes pollPlaceId="3">1509</Votes>
      <Votes pollPlaceId="4">1411</Votes>
      <Votes pollPlaceId="5">1189</Votes>
      <Votes pollPlaceId="6">1668</Votes>
      <Votes pollPlaceId="7">1446</Votes>
      <Votes pollPlaceId="8">1788</Votes>
      <Votes pollPlaceId="9">1235</Votes>
      <Votes pollPlaceId="10">1622</Votes>
      <Votes pollPlaceId="11">1590</Votes>
      <Votes pollPlaceId="12">1316</Votes>
      <Votes pollPlaceId="13">1714</Votes>
```

```
<Votes pollPlaceId="14">1469</Votes>
        </Candidate>
      - <Candidate id="23" altNumber="1236" name="KIT
          SPIRES" partyId="1" pos="2" recount="0" runoff="0"
          winner="0">
          <Votes pollPlaceId="1">111</Votes>
          <Votes pollPlaceId="2">222</Votes>
          <Votes pollPlaceId="3">333</Votes>
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          <Votes pollPlaceId="5">555</Votes>
          <Votes pollPlaceId="6">666</Votes>
          <Votes pollPlaceId="7">777</Votes>
          <Votes pollPlaceId="8">888</Votes>
          <Votes pollPlaceId="9">999</Votes>
          <Votes pollPlaceId="10">11</Votes>
          <Votes pollPlaceId="11">22</Votes>
          <Votes pollPlaceId="12">33</Votes>
          <Votes pollPlaceId="13">44</Votes>
          <Votes pollPlaceId="14">55</Votes>
        </Candidate>
      </Contest>
    </ContestList>
  </Election>
</Owner>
```